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MANUAL THERAPY IN SOME MINOR DISORDERS.

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MANY diseased or disturbed conditions of the internal organs reveal themselves by distinct signs that may be observed in a careful examination of the back—signs which vary from a slight diminution of muscle tone to a real tenderness in the paravertebral tissues directly over various spinal nerves, or more especially over the communicating cords to the sympathetic ganglia. These tender areas, corresponding to the spinal vasomotor centers of the part affected, afford valuable data concerning existing conditions, and also suggestions for cure. Mechanical stimulation of these regions along the spine gives results in both grave disease and minor disorders, if accurately and intelligently applied, *i.e.*, applied with a knowledge of the anatomical relations and of the physiological laws involved. Brief, repeated pressure, like the rapidly interrupted electric current, stimulates the reflex constrictor nerves, producing contraction of the blood-vessels in the skin and muscles of the part of the back treated, and at the same time causing a dilation of the vessels in the cord. On the other hand, a continuous pressure arouses the reflex dilators, dilating the superficial and contracting the deeper vessels in the cord.

Many of the more common disturbances of health are due practically only to a slight, but fundamental disorder of the nervous mechanism controlling the part. Any treatment which will develop or improve those nervous centers will reflexly improve the organ involved.

In the accompanying tables are presented the records of 23 cases of incontinence of urine, 5 of dysmenorrhea, and 5 of infantile diarrhea, which were treated on this principle. The management in these cases was: 1. A careful examination for general or local cause, including an examination of the urine and the removal of the cause, when found. 2. Massage—a brief, increasing mechanical pressure exerted along both sides of the spine over the region of the vasomotor and visceromotor centers of the part or parts to be affected. For the bladder this was applied at the third and fourth lumbar and the first, second, and third sacral vertebræ; for the pelvic organs, from the ninth dorsal to the sacrum; for the intestinal tract, from the sixth dorsal to the second lumbar vertebra. This manipulation of the paravertebral tissue was done three times weekly in the office, and was supplemented, where possible, by a daily effort on the part of the mother. If she were incapable or unwilling,

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CASE	SEX	AGE	CONDITION	TREATMENT	TIME	RESULTS
1	Boy	12 yrs.	Nocturnal incontinence. Treated off and on since 4 years of age; atropine, etc.	Massage 3 times weekly for 9 weeks at office. Continued by mother for	3 mos.	No relapse in 3 years and 4 months.
2	Boy	12 yrs.	Nocturnal incontinence. Treated since 4 years of age; atropine, strychnine, rhus, ergot, etc.	Restriction of fluids after 5 P.M., for 2 weeks. Massage 3 times a week for	3½ mos.	No relapse in 7 months; then lost sight of.
3	Boy	13½ yrs.	Nocturnal incontinence. Treated since 5 years of age.	Restriction of fluids after 5 P.M., for 1 month. Massage daily at office for 2 months, at home by mother for, in all,	6 mos.	No trouble after 2 months of treatment. No relapse in 11 months, when he moved away.
4	Boy	5 yrs.	Diurnal and nocturnal incontinence. Child very nervous.	KBr, gr. iiss to ℥j. 3j at nighttime. Massage.	3 mos.	No relapse in 4 years.
5	Girl	10 yrs.	Diurnal and nocturnal incontinence. Treated at different times since 5 years of age.	Massage at office 3 times a week. Ice-bag to same region at night.	4 mos.	No return in 2 years and 8 months.
6	Boy	3½ yrs.	Put to sleep at night with 12-ounce bottle of milk, the greater part of which he drinks. Was always taken up when parents retired.	Massage only.	8 wks.	No trouble in 2 years and 3 months.
7	Boy	3 yrs.	Constant dribbling since birth. Never passes over 2 drams of urine at one time. Nothing abnormal in urine. No local cause.	Dilated bladder to ascertain capacity and dilatability. Massage twice daily.	9 wks.	Time since treatment 8 months. No incontinence or dribbling. Child urinates oftener than normal, but amount is increasing and interval is getting longer. Mother continues massage.
8	Girl	10 yrs.	Anemic. Some intestinal indigestion.	Diet, peptomangan, and massage resulted in improvement of general health. Little change in incontinence. No co-operation on part of parents. After second week added atropine (gr. j to ℥j), in 10-drop doses at 5 P.M. and 10 P.M., for 1 week. Restriction of fluids after 5 P.M., for 2 weeks. Massage whenever child came to office. Ice-bag to back at bedtime. Marked improvement in 1 month.	3 mos.	No relapse after 7 months.

Case	Sex	Age	Condition	Treatment	Time	Results
9	Boy	5 yrs.	Adenoids removed 6 months before with no improvement in the incontinence, which is generally nocturnal, but does occur at times in the daytime.	Restricted fluids for 2 weeks. Massage daily.	3 mos.	No return in 2 years.
10	Girl	7 yrs.	Nocturnal incontinence. No local cause.	Treatment, massage, restricted fluid, atropine, etc.	4 mos.	No improvement. Child since developed typical epileptic attacks.
11	Girl	4 yrs.	No local cause.	Massage.	1½ mos.	Marked improvement.
12	Boy	3¼ yrs.	No local cause.	Massage.	3 wks.	No trouble in 2½ years.
13	Boy	4½ yrs.	Phimosis. Circumcised, but incontinence remained for 4 months.	Massage.	2 mos.	No trouble during next 9 months; then lost sight of.
14	Girl	3 yrs. 7 mos.	No local cause.	Massage.	2 mos.	Child had no trouble after sixth week. Mother continued massage for 8 months. No relapse after 2 years.
15	Boy	7 yrs.	No local cause.	Massage.	4 mos.	No return in 2½ years.
16	Girl	3 yrs.	No local cause.	Massage.	2 wks.	Massage continued for a month longer by mother. No trouble in 2 years.
17	Girl	5 yrs.	Pinworms. No improvement in incontinence after disappearance of worms.	Massage.	2 mos.	Massage continued by mother 2 months after cessation of trouble. No return in 14 months.
18	Boy	4 yrs.	No local cause.	Massage daily.	7 wks.	No return in 2½ years.
19	Girl	16 yrs.	No local cause.	Massage daily.	2 mos.	Left for school. Used ice-bags over spinal area for 10 minutes every night for 6 months. No trouble in 1½ years.
20	Boy	5 yrs.	No local cause.	Massage daily.	3 mos.	No trouble in 1½ years.
21	Boy	9 yrs.	No local cause. Anemia.	Massage daily; tinct. ferric chloride.	2 mos.	No trouble in 1½ years.
22	Boy	7½ yrs.	No local cause.	Massage daily.	3 mos.	No trouble in 2 years.
23	Boy	7 yrs.	Mentally deficient. No local cause. Incontinent day and night.	Massage daily and restriction of fluids for 1 month. Same and atropine in second month.	2 mos.	No improvement.

an ice-bag was substituted. This was placed over the same area until a slight reddening of the skin occurred—usually after about ten minutes.

In all, 54 cases of enuresis were treated. Of these, 17 were due to local causes, the incontinence disappearing almost immediately after the removal of irritation; 14 cases, we found, were treated not only by us, but by various different dispensaries and local druggists, and the results were, therefore, valueless. In the above table it is interesting to note that 11 of the cases had been treated before for the incontinence—cases 2, 3, and 5 almost continuously for several years. As a rule, the incontinence ceased entirely after two months, but treatment was continued, where possible, until the end of the third month.

The second table (p. 5) comprises 5 cases of dysmenorrhea, 3 neuralgic in type, with no appreciable cause for the pain in the pelvic organs, and 2 with slight obstruction to outflow. All these patients had been treated before for pain. Cases 1, 3, and 4 had been under my own care, with a slight but not positive improvement in the condition under ordinary treatment. The general health in all cases was good. In every case tenderness was noted over the last three dorsal and all the lumbar vertebræ, and in cases 2 and 5 tenderness was also elicited over the sacrum. To this area, included between the ninth dorsal vertebra and the sacrum, the interrupted brief pressure massage was applied daily. At the menstrual period ice-bags were placed over the same area, one on each side of the vertebral column, for three-hour periods. In every case, except No. 4, all drugs for pain were withdrawn; No. 4, during her first period, was given essence of ginger.

In the remaining cases, those of infantile diarrhea (p. 6), the ordinary treatment—dietetic, medicinal, and hygienic—was employed, with some improvement in every case. Manual therapy was employed first in a serious acute exacerbation with vomiting in Case 1, with such marked improvement that it was added immediately to the treatment of the other cases. In all the cases tenderness was found over the paravertebral tissue from the sixth dorsal to the third lumbar vertebra. The treatment consisted in (1) continuation of the ordinary management of the case, (2) rapid, increasing pressure massage on both sides of the spinal column, morning and evening, for periods of ten minutes, confined to the area between the sixth dorsal and third lumbar vertebræ. Whenever the number of stools exceeded five daily, ice-bags were placed over the same regions and allowed to remain three to four hours. As a rule, the number of the stools rapidly decreased, usually to one during the twenty-four hours. At these times the bowel was flushed by high rectal irrigation with tepid sterile salt solution on the next morning after the use of the ice-bag.

These brief case reports are suggestive of the value of manual therapy, both as a therapeutic factor in itself and as an aid to ordinary medicinal and dietetic treatment. A most careful study of the back in connection with the general physical examination will add much to the definiteness of the diagnosis, and suggest important and useful forms of treatment. These physical

Case	Age	Condition	Treatment	Time	Results
1	28 yrs.	Hyperesthetic endometrium. Always in bed 2 days.	Massage daily. Ice-bags at period.	3 mos.	No loss of time because of pain. Time since treatment, 1 year. Slight increase in amount of flow.
2	31 yrs.	Slight anteflexion. Pain for 2 days before and on first day of flow. Refused local treatment. In bed 3 days.	Massage daily. Ice-bags at period.	4½ mos.	Pain very slight; often entirely absent. Time since treatment, 7 months.
3	19 yrs.	Constipation. Hyperesthesia of endometrium. In bed 2 days.	Massage daily. Ice-bags at period. Cascara sagrada.	6 mos.	Never incapacitated by pain. Some pain present during first hour or so of discharge, but insignificant. Time since treatment, 9 months.
4	24 yrs.	Very severe pain. Has taken opium for relief. Nausea. Headache. In bed 2 days.	Massage daily. Ice-bags at period. First two periods, hot-water bag to abdomen and hot foot bath.	4 mos.	Pain very slight or absent. Time since treatment, 2½ years.
5	37 yrs.	Small uterus; no other causes found. In bed 4 or 5 days. Refused local treatment.	Massage. Ice-bags at period.	6 mos.	Some slight pain still present during first day. Works all the time. Time since treatment, 19 months.

Case	Age	Wgt.	Condition	Treatment	Time	Results
1	11 mos.	8 lbs.	Chronic ileocolitis with gastritis, following acute attack 3 months before. Breast-fed child. Tenderness from 6 D. to 3 L. V., most marked over 6, 7, and 8 D. V. on left side.	Ordinary therapeutic and dietetic measures. Massage morning and evening. Ice-bags for increased diarrhea.	2 mos.	Improvement marked from third day. No relapses. Time since treatment, 1 year and 3 months. Weight, 28 pounds.
2	16 mos.	15 lbs.	Chronic intestinal indigestion.	Ordinary therapeutic and dietetic measures. Massage morning and evening. Ice-bags for increased diarrhea.	3 mos.	Improvement from sixth day. No relapses. Time since treatment, 2 years and 2 months. Weight, 30¼ pounds.
3	3 yrs.	23¼ lbs.	Rachitic. Intestinal indigestion with diarrhea.	Ordinary therapeutic and dietetic measures. Massage morning and evening. Ice-bags for increased diarrhea.	2 mos.	Improvement steady. No relapses. Time since treatment, 2 years and 9 months. Weight, 40 pounds.
4	9 mos.	8½ lbs.	Chronic ileocolitis following acute attack 5½ months before. Had had 5 severe exacerbations.	Ordinary therapeutic and dietetic measures. Massage morning and evening. Ice-bags for increased diarrhea.	2½mos.	Improvement slow for 2 weeks, then rapid. No relapse. Time since treatment, 3½ years. Weight, 46 pounds.
5	7 mos.	9 lbs.	Chronic ileocolitis following acute attack 3 months before. Bottle-fed child.	Ordinary therapeutic and dietetic measures. Massage morning and evening. Ice-bags for increased diarrhea.	2 mos.	Practically well in 3 weeks. No relapses. Time since treatment, 19 months.

forms of treatment, however, must be applied in an anatomically correct and accurate manner, and with a definite knowledge of the results to be expected from each particular kind of mechanical or thermal manipulation.

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